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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,338	09/24/2001	Julie Anna Symons	HP-10014757	1196

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HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

LEVITAN, DMITRY

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 08/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/963,338

Applicant(s)

SYMONS ET AL.

Examiner

Dmitry Levitan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 09/24/01.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

*Claim Objections*

1. Claims 1-37 are objected to because of the following informalities: claims 1, 13 and 25 limitation: "wherein network traffic is not forwarded between devices not communicatively coupled by an actualized communication path" is unclear because switches are known for multiple simultaneous communication connections between numerous devices connected to the switch and the limitation requires only one connection at a time and therefore contradicts the disclosure of the switch in the invention on 11:5-15. Appropriate correction is required.

*Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5, 6, 9-15, 17, 18, 21-25, 28, 29, 31, 32, and 35-37 (as best understood) are rejected under 35 U.S.C. 102(b) as being anticipated by Yuasa (US 6,085,238).

3. Regarding claims 1, 11, 13, 23 and 25, Yuasa teaches a network and a method comprising:

A plurality of interconnected switches (interconnected switches S1-S5 on Fig. 4 and 21:52-55), wherein said switches are programmable to collectively forward instances of network traffic (each switch comprising a virtual group agent, shown on Fig. 1, and programmed to forward network traffic 17:32-42), and

A plurality of devices coupled to said plurality of interconnected switches, wherein each network interface is coupled to a switch (terminals A1, B1...C1 connected to the switches, the terminals are Personal Computers 1:56-57, connected with the switches by network interface cards NIC 21:52-65),

Wherein a communication path from a first device to a second device is actualized by enabling intervening switches to forward an instance of network traffic from said first device to said second device, wherein an instance of traffic sent from said first device and intended for said second device is forwarded by said intervening switches only to said second device (switches connecting traffic from source/first device to destination/second device, unicast message based on the virtual group routing table 8 on Fig. 1 and 17:57-18:7), and

Wherein network traffic is not forwarded between devices not communicatively coupled by an actualized communication path (inherently part of the system, because unicast messages are forwarded only to the destination address specified in the header of the message).

In addition, regarding claims, 11, 23 and 25, Yuasa teaches a first configuration comprising a first set of paths between devices (paths of the virtual group, defined by virtual group routing table 8 on Fig. 1 and 17:58-18:14) and dynamic changing said network to a second configuration comprising a second set of communication paths, including selectively disabling actualized paths and enabling new paths (creating new paths per updated routing table 8 as a result of a terminal move 18:15-42, inherently disabling the terminal paths in the old virtual group and enabling its paths in a new virtual group).

4. Regarding claims 2, 14 and 28, Yuasa teaches a switch comprising multiple switch ports (Switch on Fig. 1 with multiple ports 41-46 and 71-76, 17:32-42), wherein a device is coupled to

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a single switch port (each device is coupled to a switch port as shown in the registration table on Fig. 3 and 17:49-54) and the switch is coupled to multiple devices (as shown on Fig. 4).

5. Regarding claims 3, 15 and 29, Yuasa teaches a device comprises multiple network interfaces, wherein each network interface is coupled to ports on a same switch (using several Network Interface Cards NIC on the same terminal to connect the device/user to a plurality of VLAN groups as shown on Fig. 5a on the same switch 24:30-45).

6. Regarding claims 5, 17 and 31, Yuasa teaches communication between the switches is implemented using Layer 2 protocol of the OSI (second layer level groups as disclosed on 19:34-40, comprising the switches, as shown on Fig. 6 and 22:6-12).

7. Regarding claims 6, 18 and 32, Yuasa teaches creating the paths substantially in compliance with IEEE 802.1Q (utilizing IEEE 802.1Q tags to indicate virtual groups 25:46-26:3).

8. Regarding claims 9, 21 and 35, Yuasa teaches the devices are organized in a plurality of LANs, wherein the communication between the devices on the LAN is actualized by enabling communication between the switches, wherein the network traffic sent over a first LAN is forwarded only to said devices coupled to the LAN (inherently part of the logical segmentation of the network into Virtual LANs 1:14-19).

9. Regarding claims 10, 22 and 36, Yuasa teaches a device removal from the LAN by selectively disabling actualized paths and enabling new paths (creating new paths per updated routing table 8 as a result of a terminal move 18:15-42, inherently disabling the terminal paths in the old virtual group and enabling its paths in a new virtual group).

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10. Regarding claims 12 and 24, Yuasa teaches a multi-functional device, wherein a first communication path to the device is actualized for a first function and a second path to the device is actualized for a second function (terminal, disclosed as a Personal Computer, is multi-functional device connected to a plurality of servers/ports A, B and C and actualized for a plurality of virtual LANs VA, VB and VC as shown on Fig. 5a and 24:30-45).

11. Regarding claim 37, Yuasa teaches selectively disabling actualized paths and enabling new paths to a multi-functional device according to a function performed by said multi-functional device (creating new paths per updated routing table 8 as a result of a terminal move 18:15-42, inherently disabling the terminal paths in the old virtual group and enabling its paths in a new virtual group, wherein said multi-functional device, a PC, function is being a member of a particular virtual LAN).

### *Claim Rejections - 35 USC § 103*

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 7, 8, 19, 20, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuasa in view of Tezuka (US 6,047,320).

Yuasa teaches all the limitations of parent claims 1, 13 and 25, including selectively disabling actualized paths and enabling communication path between intervening switches (see rejection of the claims above).

Yuasa does not teach organizing devices in multiple tiers, wherein a path from a first tier to a second tier directs the traffic from the first tier only to the second tier and selectively disabling actualized paths and enabling new paths to a device moved from first tier to the second tier.

Tezuka teaches organizing devices in multiple tiers, wherein a path from a first tier to a second tier directs the traffic from the first tier only to the second tier (directory tree on Fig. 3 organizing the company network into divisions/second tiers SDL and SDC and departments/first tiers 4, 5 and 6 4:19-39, inherently directing the traffic from the user of the first tier only to the intended recipient of the second tier, because all of them are closed virtual networks 1:39-45 and a unicast message directed to one network is not received in any other) and selectively disabling actualized paths and enabling new paths to a device moved from first tier to the second tier (making the network updates according to the personnel changes 1:46-59 inherently resulting into disabling actualized paths and enabling new paths, as the user is moved to another virtual network 2:25-36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add organizing devices in multiple tiers, wherein a path from a first tier to a second tier directs the traffic from the first tier only to the second tier and selectively disabling actualized paths and enabling new paths to a device moved from first tier to the second tier of Tezuka to the system of Yuasa to improve the system operation in an organization where the employees are organized in divisions and departments.

14. Claims 4, 16 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuasa in view of Gai (US 6,678,241).

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Yuasa teaches all the limitations of parent claims 1, 13 and 25.

Yuasa does not teach network interfaces coupled to ports on more than one switch.

Gai teaches network interfaces coupled to ports on more than one switch (virtual LANs, identified by color, coupled to different switches 230-234 on Fig. 2 and 6:48-7:5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add network interfaces coupled to ports on more than one switch of Gai to the system of Yuasa to improve the system reliability, as Gai disclose on 5:26-38, reconfiguring the system if a VLAN connection to the switch will fail.

15. Claims 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuasa in view of Lewis (US 6,421,719).

Yuasa teaches all the limitations of parent claim 25.

Yuasa does not teach monitoring network and application performance against the threshold and changing the network configuration when the threshold is crossed.

Lewis teaches monitoring network and application performance (monitoring managed objects comprising network elements and software applications 1:25-36) against the threshold and changing the network configuration when the threshold is crossed (issue commands when a specific object performance crosses a specified threshold to the configuration manager to change the network configuration 10:47-62).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add monitoring network and application performance against the threshold and changing the network configuration when the threshold is crossed of Lewis to the system of



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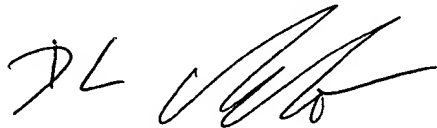
Yuasa to improve the system reliability, by reconfiguring the system upon the performance of the network or a software application.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'DL' followed by a stylized name.

Dmitry Levitan  
Patent Examiner.  
08/24/05